iVMS-4000 (V2.03.07)

Decoder Control

User Manual

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Chapter 1 Introduction

1.1 Overview

As supplemental to the *User Manual of iVMS-4000(V2.03.07)*, this manual aims to introduce the decoder configuration of the iVMS-4000 (V2.03.07) client application software.

The decoder is used for decoding and outputting the network video signal from DVR, DVS, IP Camera and IP speed dome, and then displaying the video on TV wall. It supports multiple network transmission protocols and ensures the high stability and reliability of the system running.

1.2 Computer Disposition Request

Operating System: Microsoft Windows7/Windows 2008 (32/64-bit system)
Windows 2003/Windows XP/Windows 2000 (32-bit system)

CPU: Intel Pentium IV 3.0 GHz or models above

RAM: 1G or above

Display: 1024×768 resolution or above

Note: Higher hardware configuration is required for synchronous multi-camera live view or viewing video at higher resolution.

1.3 Convention

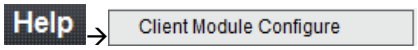
Conventions as follows in this manual:

- The *Client Software* refers to the iVMS-4000 client application software.
- The *Device* refers to DVR, hybrid DVR, NVR, DVS, IP Camera and IP Dome.
- The *Click* refers to left click the mouse.
- *The Double click* refers to double left click the mouse.

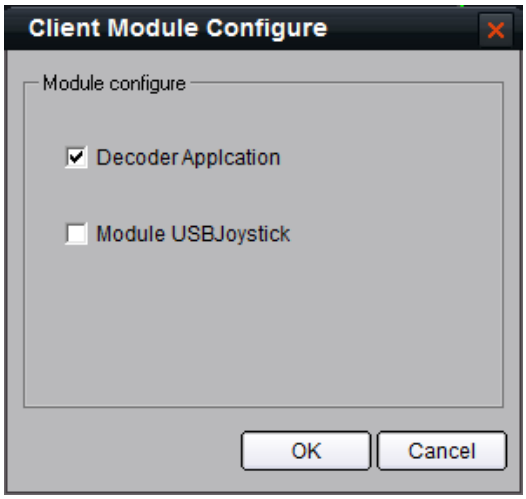
Chapter 2 Decoder Control

The iVMS-4000 client software allows the access by DS-6000DI, DS-6300DI, DS-6101DI and DS-6401HDI Decoder for decoding network video signal from DVR, DVS, IP Camera and IP speed dome through the decoder module and then realize the display and switching of video on TV wall.

2.1 Run Decoder Module

Click 

on the menu bar to enable the application of decoder module.

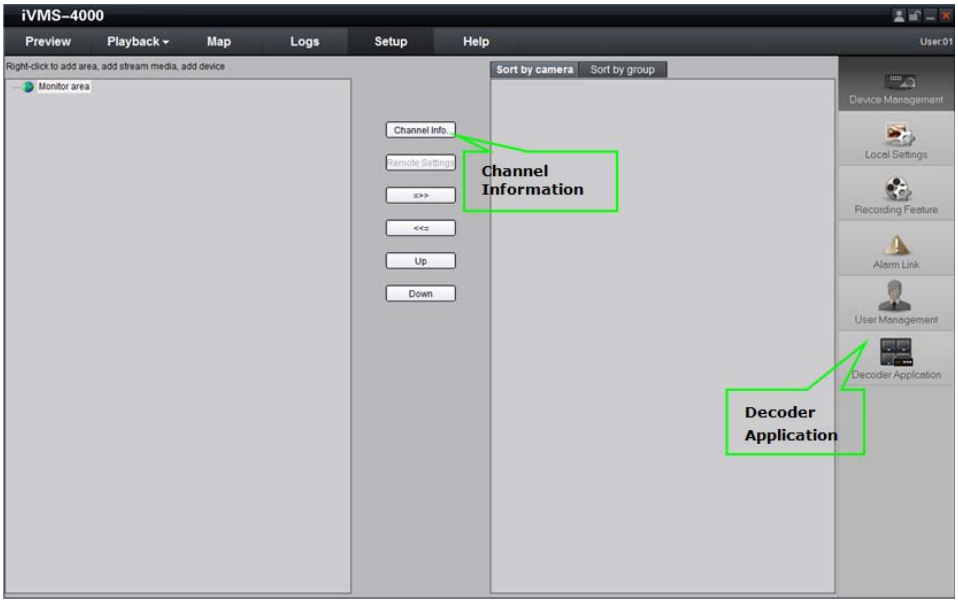


Settings will take effect after having restarted the client software.

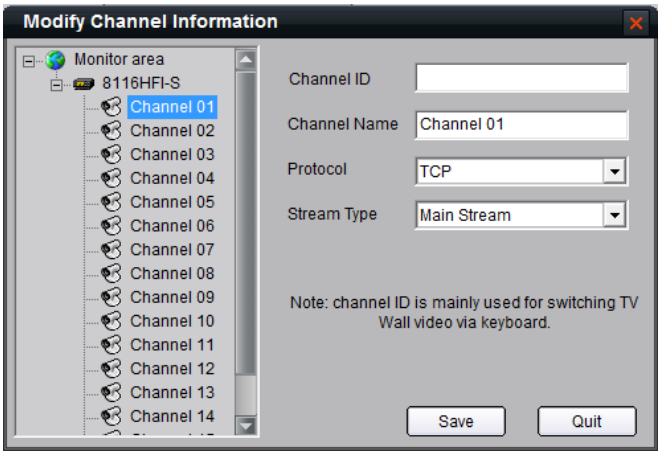
The

icon and

button will be displayed on the Setup interface. Refer to the following figure:



Click the Channel Info. button to enter the Modify Channel Information interface. User can edit the channel ID for switching TV wall video via keyboard.



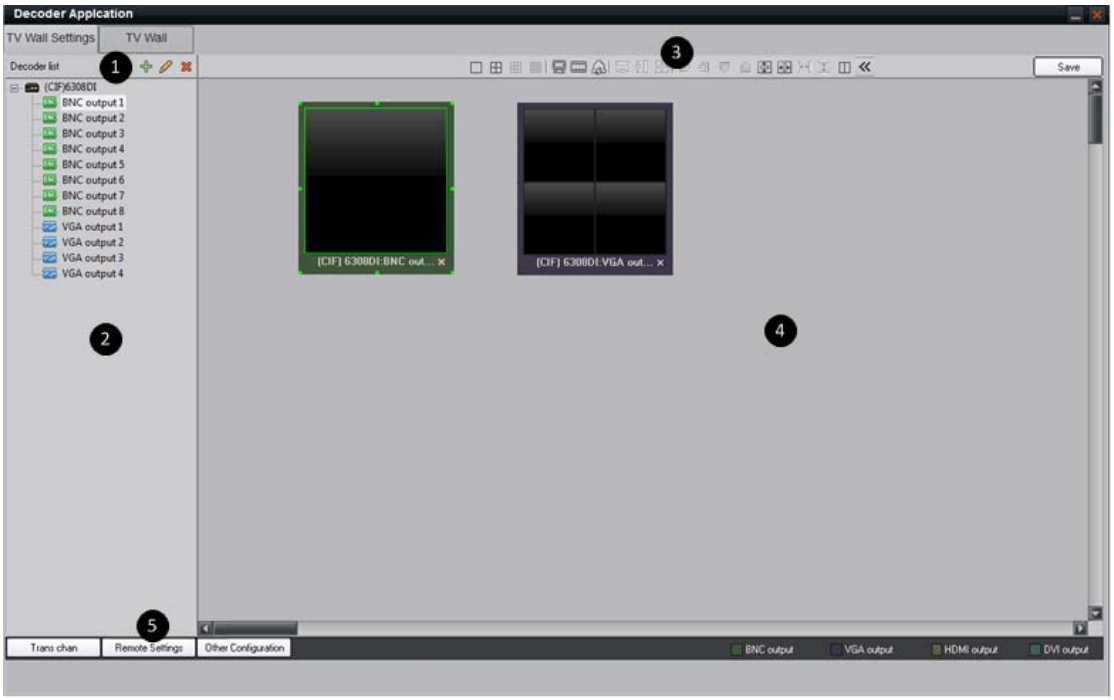
2.2 Configure Decoder Settings

Enter the Setup interface and click

to run the decoder module and enter the decoder interface.

2.2.1 Decoder Configuration Interface

The decoder configuration interface is shown as below:



System Panel:

Area	Description		Area	Description
❶	Tab bar		❷	List of decode output channels
❸	Toolbar		❹	Decode channel display
❺	Configuration buttons			

Toolbar:

	1\4\9\16-division display			2-division display

Decode Output Configuration Buttons:

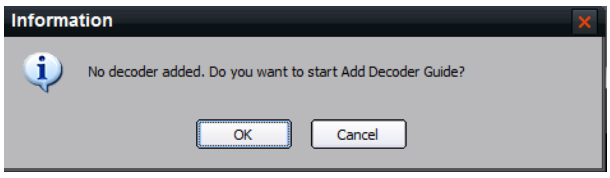
Button	Description		Button	Description
	Preview type			Playback type
	Alarm type			

Decoder Layout Toolbar:

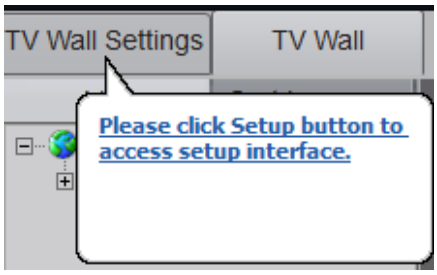
Button	Description		Button	Description
	Left align			Right align
	Right align			Bottom align
	Center vertically			Center horizontally
	Equal horizontal distance			Equal vertical distance
	Equal width			Equal height
	Equal size			

2.2.2 Configure Decoder

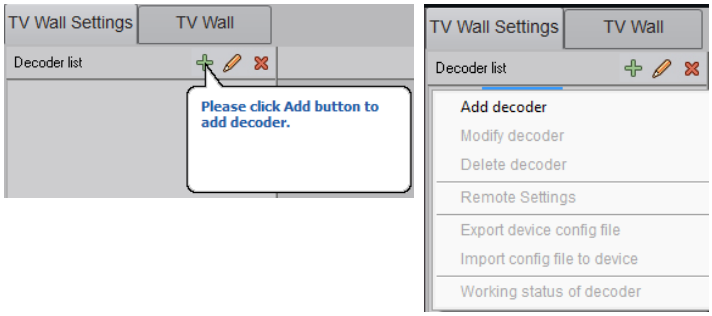
If there is no decoder added in the software, the system will pop up a message box of “Add Decider Guide”. Click OK to start the guide.



Step1: Follow the guide and click the “TV Wall Settings” to enter the decoder settings interface.

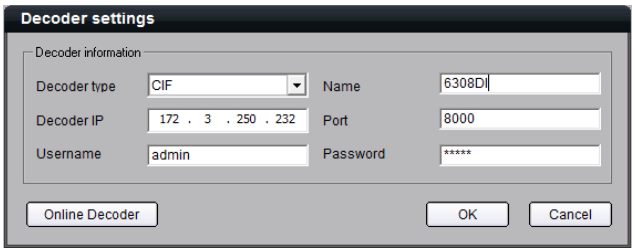


Step2: Click the button or right click in the Decoder list area and select "Add decoder" to add decoder.



Step3: Select the decoder type and then input the name, IP address, user name and password of the decoder. Click OK to finish the adding of decoder.

Note: User can also click the "Online Decoder" button to select and add the online decoder.

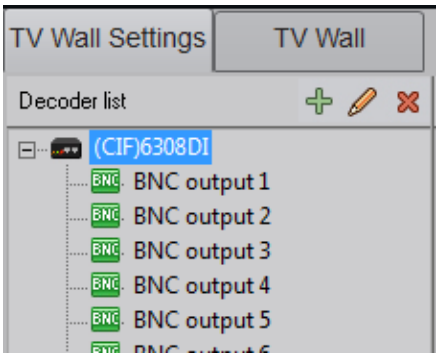


Option	Instruction
Decoder type	CIF, 4CIF, 720P and 1080P are selectable
Decoder name	Edit the name of Decoder
Decoder IP	IP address of the Decoder
Port	Port of the Decoder
Username/Password	Username and password for login to the Decoder

The decoding resource of DS-6000DI, DS-6300DI, DS-6101DI and DS-6401HDI is shown as below:

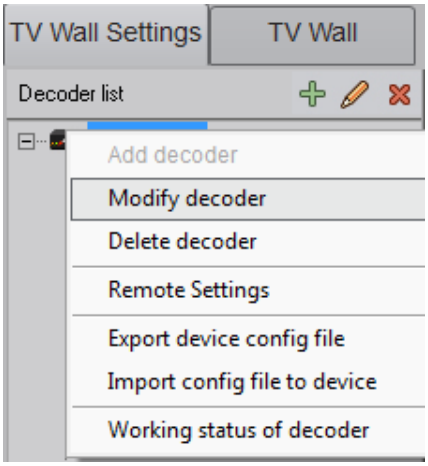
Decode type	Description							
	DS-6000DI			DS-6300DI			DS-6101DI	DS-6400HDI
	6001DI	6004DI	6008DI	6301DI	6304DI	6308DI	6101DI	6401HDI
CIF	1-ch	4-ch	8-ch	4-ch	8-ch	16-ch	4-ch	4-ch
4CIF	1-ch	4-ch	8-ch	2-ch	4-ch	8-ch	1-ch	4-ch
720P	Not support			1-ch	2-ch	4-ch	Not support	2-ch
1080P	Not support			Not support			Not support	1-ch

Step 4: After having added successfully, the decoder channels will be displayed in the decoder list. If the Decoder supports VGA, it will display the VGA output. The 6300DI decoder supports simultaneous BNC and VGA outputs, and 6401HDI provides BNC, VGA, HDMI and DVI output.



Step 5: Right click a decoder and select “Modify decoder” or directly click “” to modify the added decoder.

User can also select “Delete decoder” or directly click “” to delete the added decoder.



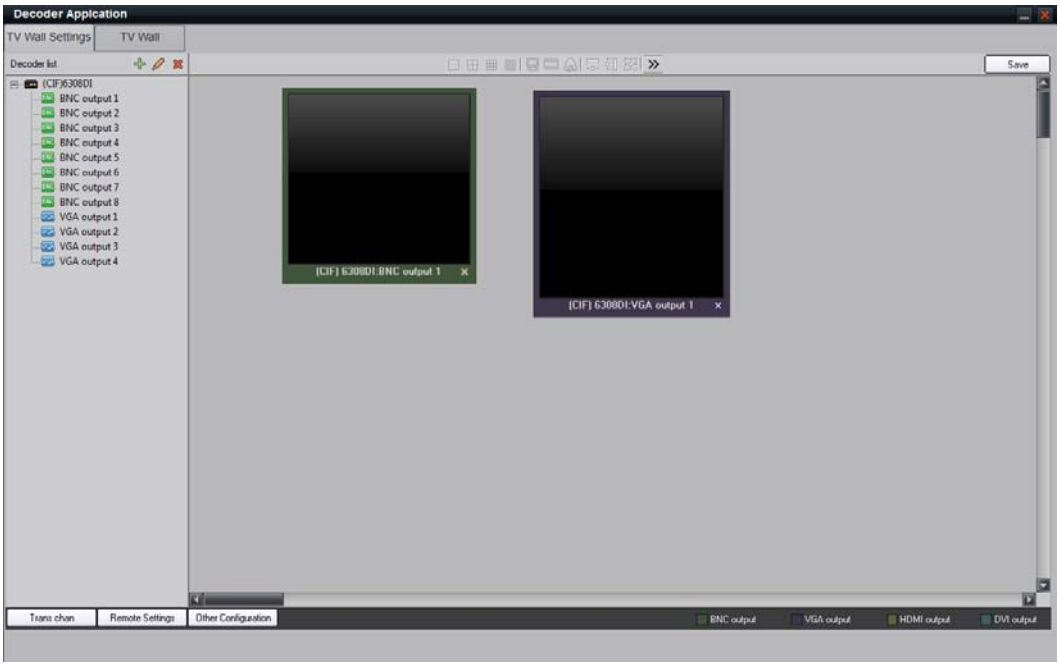
Note: It is recommended to add the same decoder in one iVMS-4000 client software only so as to avoid control confusion caused by its being added in different client software.

2.2.3 TV Wall Settings

Enable/Disable decode output

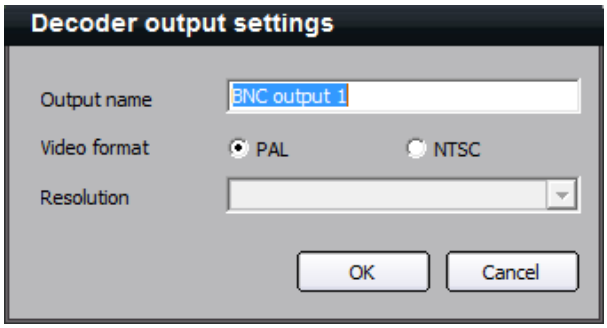
After having added the decoder, the decode channel is not in using by default. Drag one channel to the decoding channel display area on the right to enable this output channel.

User can also click “” on the lower right corner of the window to disable the output channel.

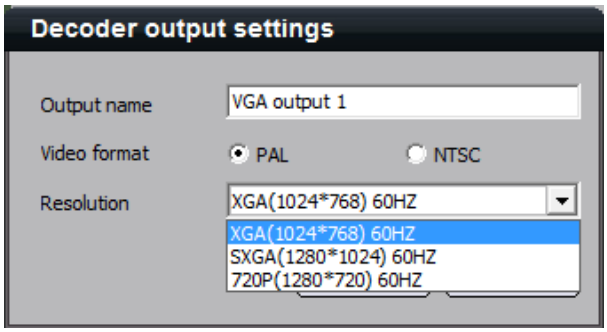


Decode output settings

User can double click a channel of the decoder to enter the "Decoder output settings" and configure the channel name and select video format.

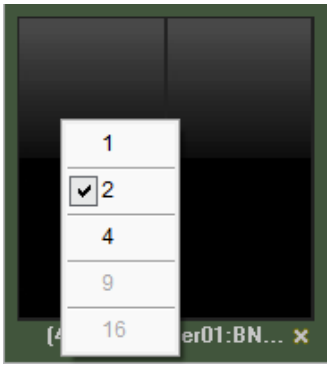


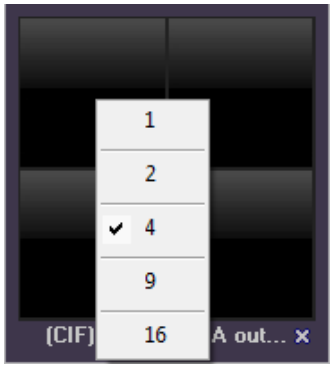
If the decoder provides the VGA, DVI or HDMI output, user can also select different resolution from the drop-down menu.



Window division configuration

By right clicking the decoder channel, user can change the window-division display mode.





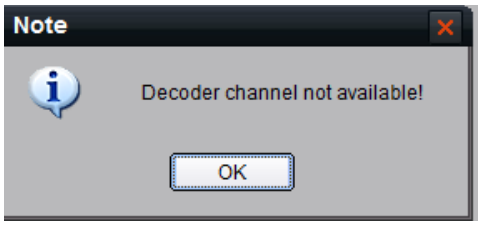
The section will be different depended on the device type.

Different window-division display modes are selectable according to different deice type and output channel type.

Refer to the following table:

Decoder Type	Model	Output channel	Window-division
DS-6000DI	6001DI	BNC output	1
	6004DI		
	6008DI		
DS-6300DI	6301DI	BNC output	1, 2, 4
		VGA output	1, 2, 4
	6304DI	BNC output	1, 2, 4
		VGA1 output	1, 2, 4,9
		VGA2 output	1, 2, 4
	6308DI	BNC output	1, 2, 4
		VGA1 output	1, 2, 4, 9, 16
		VGA2,3,4 output	1, 2, 4
DS-6100DI	6101DI	BNC output	1, 2, 4
DS-6401HDI	6401HDI	BNC, VGA, DVI, HDMI	1, 2, 4

After configuration of the window division, if it has reached the limit of decoding source, then the system will display the warning message of “Decoder channel not available!” when the user continues to enable the decode output channel.
For example, in the CIF decoding type, the first two channels of 6308DI (8-channel decoding at 4CIF) have been configured with quad display, then when user tries to enable the third decoding output, the system will pop up the error message dialog box as shown in the right.

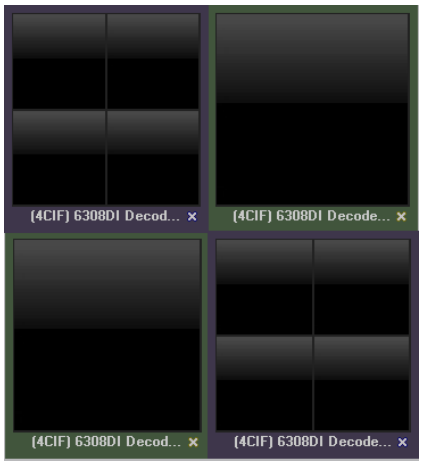


Note:

For DS-6300DI Series Decoder, each of the BNC output is allowed to display the decoded video from its corresponding DSP only; the first VGA output can display the decoded video from all of its DSPs, while the rest VGA output is allowed to display the decoded video from its corresponding DSP only as well.
For DS-6300DI Series Decoder, only one output channel can be selected from the HDMI, DVI, BNC and VGA outputs for display each time. Please refer to the User Manual of DS-6300DI and User Manual of DS-6401HDI.

After configuration of the window division, if it does not reach the limit of decoding source, when enabling decode output and exceeding decoding source, then the exceeded window will be invalid.

For example, in the 4CIF decoding mode, when the first three channels of 6308DI (8-channel decoding at 4CIF) have been configured with a total of 6 windows decoding, then user is allowed to enable the fourth decoding output, however, if it is displayed in 4 windows division, then the last two decoding

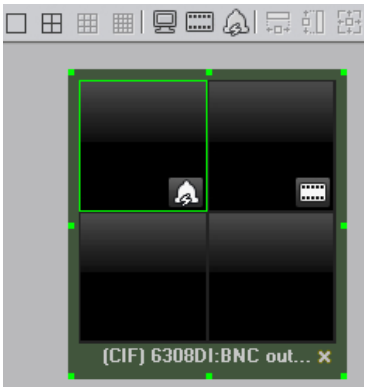


Decode channel position management

After having enabled the decoding output and configured the display mode, user can change the size and position of the display window.
Click the mouse and hold on the title below the window to change its position. By dragging a border of the decoder, user can change the size of the window. You can also use the layout toolbar to adjust the size and position.

Decode type setting

Select one sub-window and then click the top buttons to set its decode type to preview type ( ), playback type ( ) or alarm type ( ).



Note:

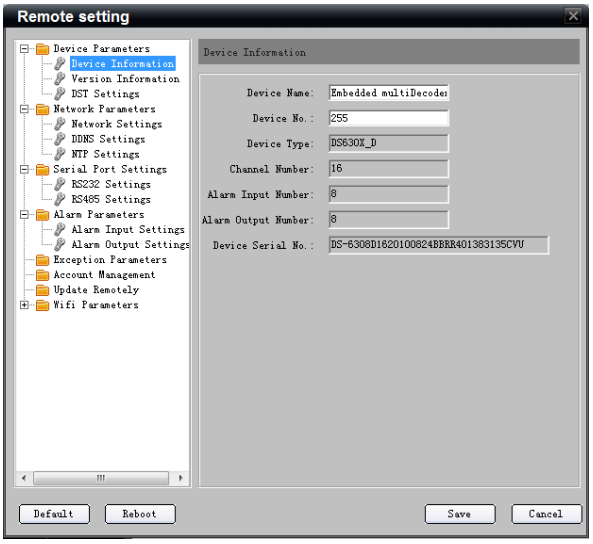
1. Only one sub-window can be configured for alarm type.
2. Up to four sub-windows from the same decoded video output can be configured for playback type; and only 1 decoded output channel is allowable to be configured for playback type each time.

Click “Save” at the top right corner to validate the new settings.

Note: This function can be supported by DS-6300DI, DS-6101DI and DS-6401HDI Series Decoder only.

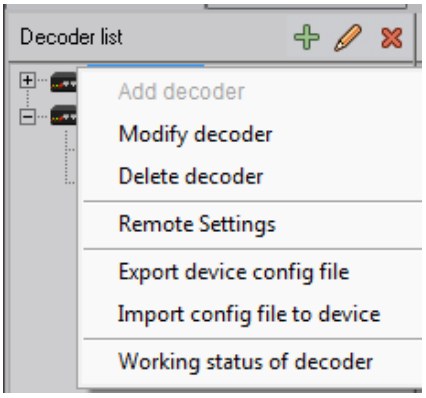
2.2.4 Remote Decoder Configuration

Select a decoder and right click it to select “Remote Settings” to enter the decoder Remote settings interface.



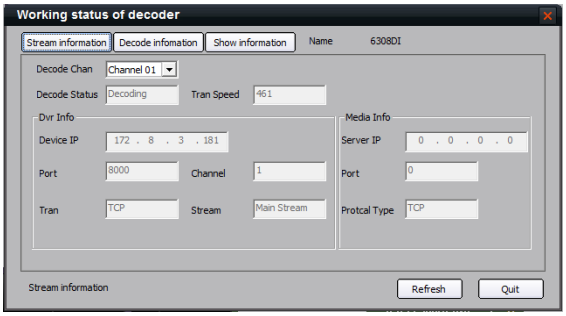
Export/Import Config File

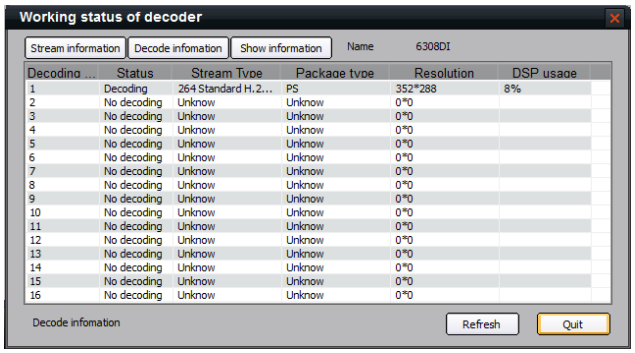
Select a decoder and right click it to select “Export device config file” to export the configuration files of the decoder to local PC, or select “Import config file to device” to import the local configuration files to the decoder.

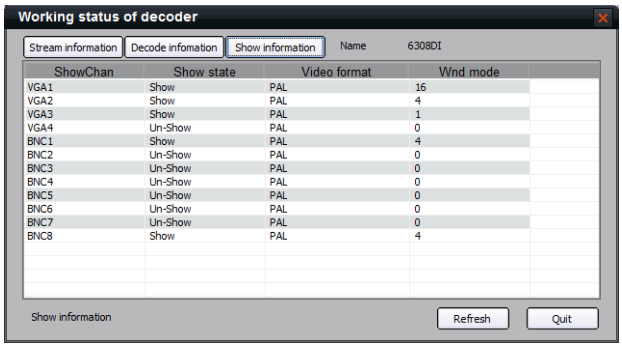


View Decoder Status

Select a decoder and right click it to select “Working status of decoder” to enter its interface. User is allowed to view the stream information, decode information and show information of the selected decoder.

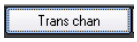



Working status of decoder
Stream information
Decode infomation
Show information
Name
6308DI
Decoding ...
Status
Stream Type
Package type
Resolution
DSP usage
1 Decoding 264 Standard H.2... PS 352*288 8%
2 No decoding Unknow Unknow 0*0
3 No decoding Unknow Unknow 0*0
4 No decoding Unknow Unknow 0*0
5 No decoding Unknow Unknow 0*0
6 No decoding Unknow Unknow 0*0
7 No decoding Unknow Unknow 0*0
8 No decoding Unknow Unknow 0*0
9 No decoding Unknow Unknow 0*0
10 No decoding Unknow Unknow 0*0
11 No decoding Unknow Unknow 0*0
12 No decoding Unknow Unknow 0*0
13 No decoding Unknow Unknow 0*0
14 No decoding Unknow Unknow 0*0
15 No decoding Unknow Unknow 0*0
16 No decoding Unknow Unknow 0*0
Decode infomation
Refresh
Quit

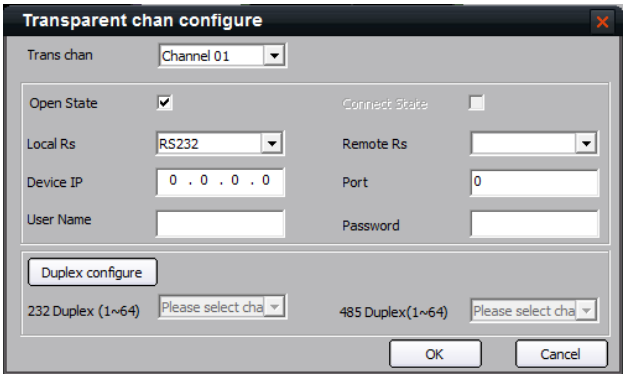


Note: The “Export/Import Config File” and the “View Decoder Status” functions are supported by DS-6300DI, DS-6101DI and DS-6401HDI series decoder only.

Transparent Channel Configuration

Select the device and then click 

at the lower left corner on the "TV Wall Settings" interface to enter the "Transparent chan configure" interface.

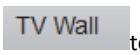


User is allowed to configure the following settings:

Item	Description
Trans chan	Select the transparent channel No.
Open State	Enable/disable transparent channel
Local Rs	Select local serial interface to RS232 or RS485
Remote Rs	Select remote serial interface to RS232 or RS485
Device IP	IP address of the remote device
Port	Port No. of the remote device
User Name	User name of the remote device
Password	Password of the remote device
Duplex configure	Configure the full-duplex settings
232 Duplex	Select a RS-232 channel to full-duplex
485 Duplex	Select a RS-485 channel to full-duplex

2.3 Video Decoding Control

2.3.1 Decoding Control Interface

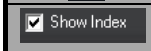
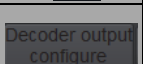
After adding decoder configuration, click the tag 

to enter decoder control interface.

Area	Instruction		Area	instruction
❶	Device list		❷	PTZ control panel
❸	Preset list		❹	Display of decoding channel
❺	Live view of decoded video from selected decoding channel		❻	Display of working status of selected decoding channel
❼	Add third-party network camera for the monitoring area			

Enter TV Wall control interface, and the decoding channel will be displayed in the area according to user-defined configuration. Click to hide the display of decoded video and status, or click to resume display.

Description of the functional buttons on the interface:

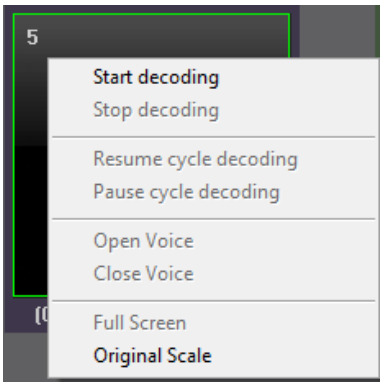
Button	Description		Button	Description
	Start playing the decoded video			Stop playing the decoded video
	Start cycle decoding			Stop cycle decoding
	Preview type			Playback type
	Alarm type			Start/Stop live view of locally decoded video
	Capture			Record
	Show/hide index on the decode channel window			Configure the position of decode channel windows and select the decode type

2.3.2 Video Decoding

Select the decoding window and double click the desired channel from the device list, and then the decoder will start decoding for this channel. The real-time decoded video will be displayed on the live view panel, and the current decoding status can be viewed in the Channel list.

Start/Stop decoding

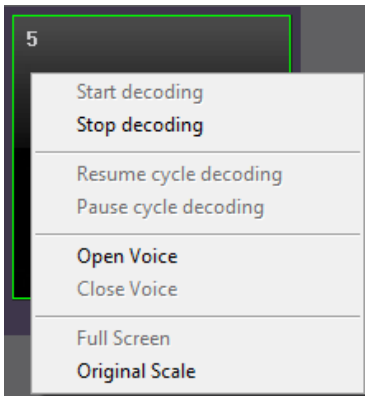
When the decoding is disabled, user can right click the decoding window and select “Start decoding” or click on the toolbar to start decoding.
Right click the decoding channel and select “Stop decoding” or click on the toolbar to stop decoding of the current decoding window.



Open/Close voice

Right click the current decoding window and select “Open Voice” option to open voice; when the voice is turned on, right click the decoding window, and select “Close Voice” option to close voice.

Note: Only the Audio & Video stream type can support this function.



User may right click on the decoding window from VGA output to select “Full Screen” or “Original Scale” display mode.

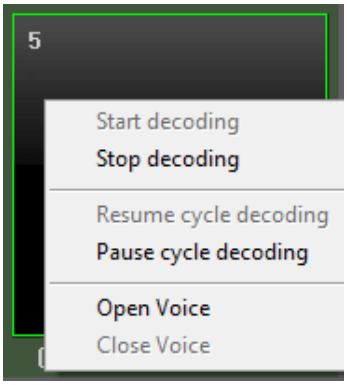
2.3.3 Cycle Decoding

Drag a device or group node to the designated decoding window, and then all channels under this device or group will be decoded in cycle. The real-time decoded video will be displayed on the live view panel, and the current decoding status will also be displayed in the *Channel list*.

Pause/Resume cycle decoding

Right click the current cycle decoding window, and select the “Pause cycle decoding” or click to pause the cycle decoding.

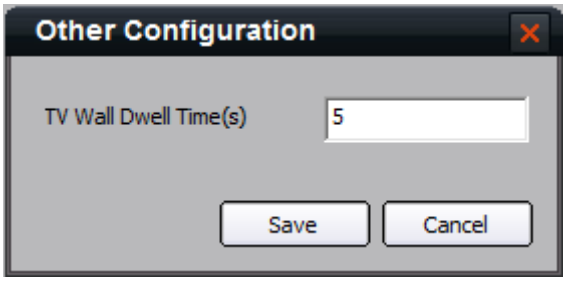
When the cycle decoding is in paused status, user may right click on the decoding window and select Resume cycle decoding or click to start cycle decoding again.



Configure the cycle decoding dwell time

Click Other Configuration button at the lower left corner of TV Wall Settings interface to enter the menu for setting the TV wall dwell time.

After configuring the dwell time, click “Save” to save the settings.



Note: The dwell time of cycle decoding can be set to 5~300s.

2.3.4 PTZ Control

If the decoder is connected with PTZ, user can operate the PTZ control through the client software.

There are 8 directional keys to control PTZ movement, and the sliding bar is used to change PTZ speed, which is adjustable from 1 to 7, and the default speed is 4.

Click key to start auto scanning and click it again to stop scanning.

Click the function keys on the right to adjust focus, iris and zoom.

Note: If the current decoding window is under cycle decoding, the cycle decoding will be paused while operating PTZ control; and when the PTZ control is finished, the cycle decoding will be resumed.

2.3.5 Playback Control

Click a decoding window of playback type to enter the playback interface.

If the device is configured with the NVR recording, it allows user to select the search of recording files from Device Disk or NVR.

Directly drag a channel of the device to the decode window division of playback type, and it will automatically search the record of the current day for playback.

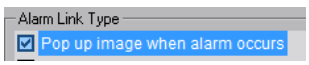
For detailed operating instructions, please refer to the Chapter of Playback in the *User Manual of iVMS-4000*.

Note: This function is supported by DS-6300DI, DS-6101DI and DS-6401HDI series decoder only.

2.3.6 Alarm Decode Control

The decode window division can be set to the alarm decode type, which allows user to decode the designated alarm linked recording channel when alarm occurs and then display it on the TV Wall.

The support of this function requires user to configure the following settings:

1. Set the alarm trigger method of the device with “Upload to center”.
2. Set “Arm software” for a device or an area in the preview interface.
3. Set the alarm link type to 

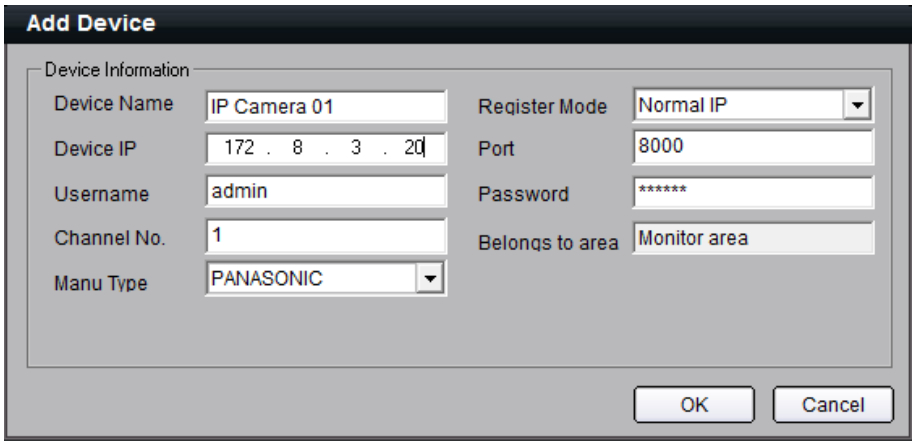
in the Alarm Link settings interface.

Note: This function is supported by DS-6300DI, DS-6101DI and DS-6401HDI series decoder only.

2.4 Third-party Network Camera

Add Third-party Network Camera

In the TV Wall interface, right click the monitoring site and then click the Add Manu-IPC button to enter the Add Device dialog box.

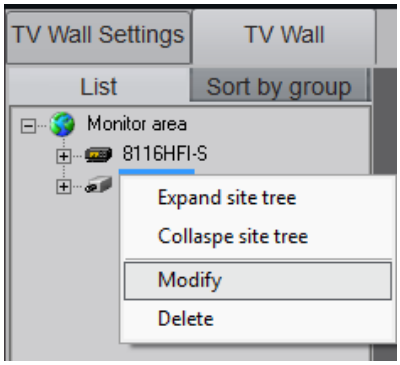


Configure the following settings in the Add Device interface:

Item	Description
Device Name	Edit the device name
Register Mode	Select the register mode to Normal IP or Normal Domain
Device IP	IP address of the added device
Port	Port No. of the added device
Username	User name for login to the device
Password	Password for login to the device
Channel No.	Channel No. of the added device
Belong to area	Monitor area to which the device belongs
Manu Type	Third-party network camera manufacturer, e.g., PANASONIC, SONY, AXIS, etc.

Modify/Delete Network Camera

Right click the added third-party network camera from the device list, and then select “Modify” or “Delete” to modify or delete the added device.



Appendix List of Third-party Network Cameras Access

IPC Manufacturer	Model	Firmware Version	Supported Resolution	Supported BitRate
Panasonic	WV-NP240 Series	1.00Ex(*x* stands for numeric)	640×480/320×240 (not support frame rate settings)	CBR: (support: 64, 128, 256, 512, 1024, 1536, 2048, 3072, 4096kbps)
Sony	SNC-DF40/DF70	1.03	640×480/480×360/384×288/320×240/256×192/160×120(frame rate: 25, 20, 15, 10, 8, 6, 5, 4, 3, 2, 1)	VBR: (support: 2048, 1536, 1024, 768, 512, 384, 256, 128, 64 kbps) CBR: (support: 2048, 1536, 1024, 768, 512, 384, 256, 128, 64 kbps)
Axis	207W/207MW	4.4	640×480/1280×1024/1280×720/1280×960/1280×480/480×360/480×270/352×288/320×240/320×180/240×180/240×135/176×144/160×120/160×90 (frame rate: 25, 20, 15, 10, 8, 6, 5, 4, 3, 2, 1)	VBR: (support: 64, 128, 256, 512, 1024, 1536, 2048, 3072, or self-defined 32-8192 kbps) CBR: (support: 64, 128, 256, 512, 1024, 1536, 2048, 3072, or self-defined 32-8192 kbps)
	Q1755	5.02	1920×1080/1280×720/800×450/480×270/320×180 (frame rate: 25, 20, 15, 10, 8, 6, 5, 4, 3, 2, 1)	VBR: (support: 64, 128, 256, 512, 1024, 1536, 2048, 3072, or self-defined 32-8192 kbps) CBR: (support: 64, 128, 256, 512, 1024, 1536, 2048, 3072, or self-defined 32-8192 kbps)

Sanyo	VCC-HD4000	MAIN Ver: 1.04-90 SUB Ver: 1.00-03	1280×720/960×540/640×360/320×180 (not support frame rate settings)	Not support
	VCC-H500	CAM MAIN Ver 1.00-08; CAM SUB Ver 1.00-00; NET MAIN ver 1.00-04; NET SUB Ver 1.00-01	1280×720/640×360/320×180 (not support frame rate settings)	Not support
	VCC-HD2300	MAIN Ver: 1.01-01(100312-03); SUB Ver: 1.00-02(100224-00)	1920×1080/1280×720/640×360/320×180 (not support frame rate settings)	Not support
Bosch	NBC255P	18500400	640×480/320×240/704×576/704×288/352×288/176×144 (not support frame rate settings) (Note: the resolution actually supported is 640×480/320×240, or depending on different model)	VBR: (not support) CBR: (support: 2048, 1536, 1024, 512, 384, 256, 128, 64, or self-defined 32-8192 kbps)
	NWC0495	18500400	640×480/320×240/704×576/704×288/352×288/176×144 (not support frame rate settings) (Note: the resolution actually supported is 704×576/704×288/352×288/176×144, or depending on different model)	VBR: (not support) CBR: (support: 2048, 1536, 1024, 512, 384, 256, 128, 64, self-defined 32-8192 kbps)
Zavio	f3105	MG.0.5.1.01	320×240/640×480/1280×720/1280×1024 (frame rate: 1, 2, 3, 4, 5, 7, 10, 15, 20, 30)	VBR: (support: 64, 128, 256, 384, 512, 768, 1M, 1.5M, 2M, 3M, 4M, 5M, 6M kbps CBR: (support: 64, 128, 256, 384, 512,

				768, 1M, 1.5M, 2M, 3M, 4M, 5M, 6M kbps)
ACTi	acm7411	V3.11.13	160×112/320×240/640×480/1280×720/1280×1024 (frame rate: 1, 2, 3, 4, 5, 6, 7, 10, 15, 30)	VBR: (support: 56, 128, 256, 384, 512, 750, 1024, 1.2M, 1.5M, 2M, 2.5M, 3Mkbps) CBR: (support: 56, 128, 256, 384, 512, 750, 1024, 1.2M, 1.5M, 2M, 2.5M, 3Mkbps)
Infinova	V6201-M Series	1.02.110.20090903	D1/2CIF/CIF/QCIF/640×480/1280×720/1280×960(frame rate: 1, 2, 4, 6, 8,10, 12, 15, 20, 30N/25P) (Note: the resolution actually supported is 640480/1280720/1280960, or depending on different model)	CBR: (support: 256, 512, 1M, 2M, 3M, 4M, 5M, 6M, 7M, 8M kbps)
	SD Network Camera Series	1.03.71.20091229	D1/2CIF/CIF/QCIF/640×480/1280×720/1280×960 (frame rate: 1, 2, 4, 6, 8, 10, 12, 15, 20, 30N/25P)(Note: the resolution actually supported is D1/2CIF/CIF/QCIF, or depending on different model)	VBR: (support: 256, 512, 1M, 2M, 3M, 4M, 5M, 6M, 7M, 8M kbps) CBR: (support: 256, 512, 1M, 2M, 3M, 4M, 5M, 6M, 7M, 8M kbps)
Sunell	SNIPV54/00	V1.5_build042015	704×576/352×288/176×144	VBR/CBR
ATEME	VSIP4 VSS-441	V1.2.3.1	704×576/704×288/352×288/176×144	VBR/CBR/CVQ